IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	**10/633,137**	Confirmation No. **3128**

Applicant : **Muhammad Athar Shah and Michael J. Horowitz**

Filed : **August 1, 2003**

TC/A.U. : **2621**

Examiner : **Anand Shashikant Rao**

Docket No. : **199-0201US**

Customer No. : **29855**

Title : **METHODS FOR ENCODING OR DECODING IN A VIDEOCONFERENCE SYSTEM TO REDUCE PROBLEMS ASSOCIATED WITH NOISY IMAGE ACQUISITION**

Box Appeal Brief
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Mail Stop: Appeal Briefs – Patents

APPEAL BRIEF

1

TABLE OF CONTENTS

199-0201US Appeal Brief

I. REAL PARTY IN INTEREST

The real party in interest is Polycom, Inc.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

Claims 1–4, 6, 9-24, 26, 29-34, 36 and 39-40 are rejected and are appealed. Claims 5, 7-8, 25, 27-28, 35 and 37-38 are withdrawn.

IV. STATUS OF AMENDMENTS

None filed

V. SUMMARY OF CLAIMED SUBJECT MATTER

This section provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by paragraph and line number and to the drawings by reference characters as required by 37 CFR § 41.37(c)(l)(v). Where applicable, each element of the claims is identified with a corresponding reference to the specification and drawings. Citation to the specification and/or drawings does not imply that limitations from the specification and drawings should be read into the corresponding claim element. Additionally, references are not necessarily exhaustive, and various claim elements may also be described at other locations.

Independent claim 1 recites a method implementable on an encoder (¶ 0028 ll. 3-6) for adjusting a coding threshold (¶ 0028 ll. 4-6) for encoding a block in an image (¶ 0028 l. 6), wherein the coding threshold determines whether the block should be coded (¶ 0028 ll. 7-8), comprising:

- encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder (¶ 0031);
- encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder (¶ 0030);
- assessing at least the first and second encoding parameters to determine whether

3

the image is likely stationary wherein the first and second encoding parameters comprise at least first and second quantization parameters (¶¶ 0030 ll. 5-8, 0031 ll. 1-9; Fig. 5 elements 100, 102, 104, 106, 108, 110); and

- if the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block (¶ 0031 ll. 12-13; Fig. 5, elements 104, 110, 114).

Independent claim 13 recites a method implementable on an encoder (¶ 0028 ll. 3-6) for adjusting a coding threshold (¶ 0028 ll. 4-6) for encoding a block in an image (¶ 0028 l. 6), wherein the coding threshold determines whether the block should be coded (¶ 0028 ll. 7-8), comprising:

- encoding, at a first time, a first image representation of the block using at least a first quantization parameter and a first motion vector generated by the encoder (¶ 0031; Fig. 5 element 108, 110);

- encoding, at a second time later than the first time, a second image representation of the block using at least a second quantization parameter and a second motion vector generated by the encoder (¶ 0030; Fig. 5 element 102, 104); and

- adjusting the coding threshold in the encoder for at least a portion of the block if the first and second motion vectors are substantially zero and if the first and second quantization parameters are respectively less than first and second quantization parameter thresholds (¶ 0031 ll. 12-13; Fig. 5, elements 104, 110, 114).

Independent claim 21 recites a method implementable on a decoder capable of displaying a block of an image on a display (¶ 0037; Fig 6), comprising:

- receiving from an encoder, at a first time, a first image representation of the block including first encoding parameters generated by the encoder (¶ 0037 ll. 4-7);

- receiving from an encoder, at a second time later than the first time, a second image representation of the block including second encoding parameters generated by the encoder (¶ 0037 ll. 4-7);

- assessing at the decoder whether the image is likely stationary using at least the first and second encoding parameters, wherein the first and second encoding

4

parameters include at least first and second quantization parameters (¶ 0037 ll. 10-12; Fig. 2 elements 202, 208); and

- if the image is likely stationary, not updating at least a portion of the block on the display (¶ 0037 ll. 12-15; Fig. 2 element 212).

Independent claim 21 recites a method implementable on an encoder (¶ 0028 ll. 3-6) capable of transmitting image information to a decoder, comprising:

- encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder (¶ 0031);

- encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder (¶ 0030);

- assessing at least the first and second encoding parameters to determine whether the image is likely stationary, wherein the first and second encoding parameters comprise at least first and second quantization parameters (¶¶ 0030 ll. 5-8, 0031 ll. 1-9; Fig. 7 elements 302, 304, 308, 310); and

- if the image is likely stationary, sending a no code signal to a decoder for at least a portion of the block. (¶ 0038)

5

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Independent claims 1, 13, 21, and 31 were each rejected under 35 U.S.C. § 103(a) as being anticipated by US Patent 5,231,484 to Gonzales ("Gonzales") in view of US Patent 6,360,017 to Chiu ("Chiu"). Review of this rejection is sought.

The remaining claims, which each depend from one of these independent claims, were also rejected under these references or other rejections including these reasons. For the reasons set forth below, Gonzales and Chiu, jointly or individually, do not render obvious the independent claims. Therefore, separate review of these rejections is not sought, as the dependent claims are necessarily patentable for at least the same reasons as the independent claims.

VII.   ARGUMENT

For purposes of this appeal, the claims stand or fall together. However, Appellants reserve the right to present separate arguments as to the patentability of the various claims in any subsequent proceedings.

The Rejection of Independent Claims 1, 13, 21, and 31 Is Improper Because the Claims Are Not Obvious Over the Combination of Gonzales and Chiu

As noted above, independent claims 1, 3, 21, and 31 were each rejected under 35 U.S.C. § 103(a) as obvious over Gonzales in view of Chiu. For the reasons set forth below, Gonzales and Chiu do not render obvious the independent claims.

Claim 1 discloses "a method implementable on an encoder for *adjusting a coding threshold for encoding a block in an image, wherein the coding threshold determines whether the block should be coded*, comprising:

encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder; encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder;

assessing at least the first and second encoding parameters to determine whether the

6

image is likely stationary, wherein the first and second encoding parameters comprise at least first and second quantization parameters; and

if the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block."

First, the rejection is improper because the combination of Gonzales and Chiu fails to teach or suggest "a method...for adjusting a coding threshold for encoding a block in an image, wherein the coding threshold determines whether the block should be coded..."

Examiner cites Gonzales at col. 24, ll. 17-36 as teaching this limitation. Office Action of 4-14-2008 at 2. In this passage, Gonzales discloses:

> "A method for the allocation of bits to be used to compression code digital data signals representing a set of pictures in a motion video sequence, comprising the steps of:
> - identifying each picture,...
> - determining the total number of bits to be used in compression coding,... and
> - allocating from said total number of bits for use in compression coding a picture..."

The passage referenced by Examiner relates to a method of allocating a number of bits to encoding an image.

A coding threshold is a value to be compared to "the magnitude of change in a portion of the image.... If the magnitude of change for a portion of the image is lower than some acceptable coding threshold (T1), the encoder concludes that the image portion is non-moving and will transmit such a conclusion to the receiving decoder(s) without recoding that portion of the image." (¶ 4 ll. 8-12)

As can be clearly seen, there is no evidence that Gonzales teaches "a method... for adjusting a coding threshold for encoding a block in an image, wherein the coding threshold determines whether the block should be coded..." as recited in claim 1. The cited passage says nothing at all about a coding threshold or any related concept. Therefore the rejection is improper.

Next, claim 1 recites "encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder, [and] encoding, at a second time later

7

than the first time, a second image representation of the block using second encoding parameters generated by the encoder." Examiner contends that Gonzales at col. 10, ll. 30-40 teaches the first encoding and Gonzales at col. 14, ll. 50-67 teaches the second encoding. Office Action of 4-14-2008 at 2-3. The first cited passage describes preprocessing of the image, not "encoding, at a first time, a first image representation of the block," or even encoding a block at all. Second, the passage certainly does not describe coding a second representation of the same block at a second time. The second passage merely describes adapting a quantization parameter in conjunction with a rate control algorithm to maximize video quality while staying within a constrained number bits.

Moreover, it is clear from apparent lack of any sort of temporal relationship between the two passages cited above that they do not relate to "encoding at a first time...[and] encoding at a second time..." Because the combination of Gonzales and Chiu do not teach or suggest coding first and second representations of an image block at two different times, the rejection of claim 1 is improper.

Additionally, claim 1 recites "assessing at least the first and second coding parameters to determine whether the image is likely stationary, wherein the first and second encoding parameters comprise at least first and second quantization parameters."

The Examiner contends that Gonzales at col. 15, ll. 40–54 teaches the first portion of this limitation, i.e., "assessing at least the first and second encoding parameters to determine whether the image is likely stationary...." Office Action of 4-14-2008 at 3. As an initial matter, Examiner impermissibly split this limitation into two pieces, thus failing to consider the claim as a whole. *See* MPEP § 2141.02. In any case, the passage cited by Examiner recites:

8

Motion Estimation and MB Classification Unit

One of the primary purposes of the Motion Estimation and MB Classification unit **14** is to determine which 40 coding mode $m(r,c)$ will be used to code each MB in a picture. This function is only used for motion compensated pictures, since there is only one mode for MB's in I-pictures: intramode. The mode decision relies on a motion estimation process, which also produces motion 45 vectors and motion-compensated difference MB's. Another important function of the Motion Estimation and MB Classification unit **14** is to classify each MB. The class $cl(r,c)$ of MB (r,c) will ultimately determine the value of the quantization factor $QP(r,c)$ used to code 50 that MB. The modes and classes are determined by analyzing each picture, and estimating the motion between the picture to be coded and the predicting picture(s). The same information is also used to compute the coding difficulty factor, D_k, which is passed to the 55 Picture Bit Allocation subsystem **2**.

Substantively, the passage bears little, if any, relationship to the limitation at issue. This passage addresses the use of motion estimation to determine a coding mode which will in turn dictate the quantization parameter. It therefore cannot "[assess quantization parameters] to determine whether the image is likely stationary." Even a cursory analysis of this claim language will show that the claim requires assessing the quantization parameter as part of the determination of whether the image is stationary.

The rejection cites Gonzales at col. 16, ll. 20-45 as teaching second portion of this limitation, i.e., the limitation requiring that one of the encoding parameters considered in determining whether the block is stationary include quantization parameters. The complete text of this passage is reproduced below.

20 success of motion compensation (motion compensation error), that indicates how good the match is between the MB being compensated and the predicting region pointed to by the motion vector, can be made available. It will be recalled that for P-pictures, there is one type

25 of motion estimation (forward-in-time), and for B-pictures there are three types (forward-in-time, backward-in-time, and interpolative-in-time). The forward motion vector for MB (r,c) may be denoted as $mv_f(r,c)$, and the backward motion vector as $mv_b(r,c)$. The interpolative

30 mode uses both forward and backward vectors. The forward, backward, and interpolative motion compensation errors may be denoted as $\Delta_{mc,f}(r,c)$, $\Delta_{mc,b}(r,c)$, and $\Delta_{mc,i}(r,c)$, respectively.

In addition to the motion compensation error(s), a

35 measure of the spatial complexity of each MB is needed. Denote this measure as $\Delta(r,c)$. It is important that $\Delta(r,c)$, $\Delta_{mc,f}(r,c)$, $\Delta_{mc,b}(r,c)$, and $\Delta_{mc,i}(r,c)$, are like measures, in the sense that numerical comparison of them is meaningful. In the preferred embodiment, these mea-

40 sures are all defined to be mean absolute quantities, as indicated below. Labeling each MB by its row and column coordinates (r,c), denotes the luminance values of the four 8×8 blocks in MB (r,c) by $y_k(i,j)$, i=0, ... , 7, j=0, ... , 7, k=0, ... , 3 and the average value of

45 each 8×8 block by dc_k. Then, the spatial complexity measure for MB (r,c) is taken to be the mean absolute difference from DC, and is given by

Nothing in this passage describes assessing encoding parameters, including a quantization parameter, to determine whether the block is stationary. Thus, the cited passages fail to teach or suggest "assessing at least the first and second encoding parameters to determine whether the image is likely stationary, wherein the first and second encoding parameters comprise at least first and second quantization parameters." In fact, Gonzales and Chiu in the entirety fail to teach or suggest this limitation.

Because the combination of Gonzales and Chiu does not teach or suggest "assessing at least the first and second encoding parameters to determine whether the image is likely

10

stationary, wherein the first and second encoding parameters comprise at least first and second quantization parameters," the rejection of claim 1 is improper.

Last, claim 1 recites "if the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block. Adjustment of the coding threshold is depicted in Fig. 5. Both Gonzales and Chiu fail to teach or suggest "adjustment of the coding threshold" "if the image is likely stationary," and thus cannot meet this limitation.

The threshold is a value used to compare against the "magnitude of change in a portion of the image." (¶ 4 ll. 8-9) For example, in one embodiment, "if the magnitude of change for a portion of the image is lower than some acceptable coding threshold, the encoder 20 concludes that the image portion is non-moving and will transmit such a conclusion to the receiving decoders without recoding that portion of the image. If the degree of change is greater than [the threshold], the encoder 20 similarly concludes that the image portion is moving or changing, and more detailed processing and recording of that image portion is performed prior to transfer."

Examiner contends that Gonzales teaches "adjusting the coding threshold in the encoder for at least a portion of the block" at Col. 20, ll. 45-60. Office Action of 4-14-2008 at 3. Applicants respectfully disagree with the Examiner's position. The following is the excerpt cited by Examiner from Gonzales at col. 24 ll. 18-36:

45 match the expected number. It is desired to control this deviation, not only to keep the actual bits produced for the picture close to the target, but also to prevent violation of the VBV bit-rate limitations. A rate control feedback strategy has been developed in accordance

50 with the invention which updates QP_{low} at the end of each row of MB's. A number of factors determine the update. One factor is that different rows of MB's in a picture are not expected to produce the same number of bits, because of variations in $\Delta(r,c)$ and $\Delta_{mc}(r,c)$, as well

55 as assigned quantizer step sizes. At the end of each row, the number of bits produced is compared to the expected number $T(r)$ computed in the QP-level Set unit 15. Another factor which plays a role in updating QP_{low} is the closeness of both the picture allocation and the

60 actual number of bits produced to the VBV limits. The

11

The paragraph cited by the Examiner merely describes a method of allocating bits available to code a picture by adjusting the quantization parameter. A quantization parameter is not a "threshold." In particular, a quantization parameter affects the number of distinct allowable values used to encode characteristics of a pixel. It is not, however, a value used to compare to the "magnitude of change in a portion of the image and determine whether the block should be coded." Additionally, Chiu fails to cure this defect in Gonzales. As such, "adjustment of the coding threshold" distinguishes claim 1 from both references, and claim 1 is therefore allowable.

Finally, the Examiner admits that Gonzales does not teach using a coding threshold to determine whether the block should be coded or not. Office Action of 4-14-2008 at 3. Instead, the Examiner relies on Chiu in Cols. 9, ll.1-10, 25-35. The following are the excerpts cited by Examiner:

> value, then that macroblock is not subjected to motion estimation/compensation. This results in a segmentation of a frame into macroblocks that have changed a visually perceptible amount from the previous frame and macroblocks that have not changed a visually perceptible amount from 5 the previous frame. As a result, the computational effort otherwise associated with motion estimation/compensation of that macroblock is saved or may be allocated to motion estimation/compensation of another macroblock or some other encoder processing function. It is to be appreciated that 10

12

sated. The output signal is also provided to the transformer **116**, which then informs the other affected components of 25 the encoder **100** (i.e., quantizer **118**, entropy encoder **120**, etc.), that a particular macroblock is not to be processed thereby. That is, once a macroblock is identified as one to be skipped, the macroblock is not motion estimated/ compensated and therefore the transformer **116**, the quan- 30 tizer **118**, and the entropy encoder **120** do not process data associated with that particular macroblock.

It should be understood that an encoder implementing these inventive compression techniques then need only transmit or store motion vectors for those macroblocks that 35 are motion compensated, that is, those macroblocks that have been identified as having changed a visually percep- tible degree from a corresponding macroblock of the previ- ous frame. Advantageously, a corresponding video decoder

As with the Gonzales passage described above, nothing in either of these passages teaches, suggests, or in any way relates to "if the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block." These two passages of Chiu relate to identifying unchanged macroblocks and skipping the encoding of these unchanged macroblocks. Conversely, the claims of the present application require encoding the macroblock not once, but twice, and analyzing the coding parameters to determine if the block is stationary. Chiu's teaching of skipping the encoding of unchanged macroblocks does not at all relate to the recited method step of coding a block twice and comparing the coded macroblocks to determine if the image is likely stationary. Moreover, nothing in Gonzales or Chiu has anything at all to do with adjusting a coding threshold. Therefore, because Gonzales and Chiu fail to teach or suggest "if the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block," the rejection is improper.

Because the proposed combination of Gonzales and Chiu fails to teach or suggest numerous limitations of the pending claims, the rejection of these claims as obvious over these references improper. Although it is not necessary to address the proposed rationale for combining Gonzales and Chiu, Applicants note that Examiner's proposed rationale is improper. Specifically, the Examiner states that "it would have been obvious for one of ordinary skill in the art to incorporate the Chiu skipping step into the Gonzales method in order to convey the

advantage or alleviating the computational burdens associated with the encoding processing of the method of the primary reference."

This rationale completely ignores the fact that the claims expressly recite that the blocks in question are encoded twice, and that the net result is not a reduction in present computational burden at the present time, but rather a change in a coding threshold that prevents a block from being coded in the future for aesthetic purposes. Further, unchanged blocks make up only a portion of blocks that fall under the category of changing less than a threshold amount. As such, there exists no motivation to combine Chiu with Gonzales.

Conclusion

For at least the reasons stated above, Applicants respectfully submit that all outstanding rejections should be reversed. Additionally, to the extent specific claims have not been addressed, these claims depend from one or more claims that are specifically addressed, and are therefore patentable for at least the same reasons as the claims specifically addressed. Applicants further believe that they have complied with each requirement for an appeal brief.

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed, but rather that they are not pertinent to the outstanding rejection as presently framed. Nonetheless, the claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art which have yet to be raised (because they are not pertinent to the present rejection), but which may be raised in future proceedings as appropriate.

If any fees are required or have been overpaid, please appropriately charge or credit those fees to Deposit Account Number 501922, referencing docket number **199-0201US**.

* * * * *

14

Respectfully submitted,

<u>   /Billy C. Allen III/   </u>

May 4, 2009

Billy C. Allen III, Reg. No. 46,147
Wong, Cabello, Lutsch,
    Rutherford & Brucculeri, L.L.P.

Filed Electronically

20333 State Hwy 249, Suite 600
Houston, TX 77070
832-446-2409

15

VIII. CLAIMS APPENDIX

1. (previously presented) A method implementable on an encoder for adjusting a coding threshold for encoding a block in an image, wherein the coding threshold determines whether the block should be coded, comprising:

> encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder;

> encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder;

> assessing at least the first and second encoding parameters to determine whether the image is likely stationary, wherein the first and second encoding parameters comprise at least first and second quantization parameters; and

> if the image is likely stationary, adjusting the coding threshold in the encoder for at least a portion of the block.

2. (original) The method of claim 1, wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients.

3. (original) The method of claim 1, wherein the first and second encoding parameters respectively comprise at least first and second motion vectors.

4. (original) The method of claim 3, wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero.

5. (canceled)

6. (previously presented) The method of claim 1, wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds.

7-8. (canceled)

9.   (original) The method of claim 1, wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time.

10.   (original) The method of claim 1, wherein adjusting the coding threshold comprises increasing the coding threshold.

11.   (original) The method of claim 1, further comprising:

        encoding, a third time prior to the first time, a third image representation of the block using third encoding parameters generated by the encoder; and

        assessing at least the first, second, and third encoding parameters to determine whether the image is likely stationary.

12.   (original) The method of claim 1, wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are intercoded.

13.   (original) A method implementable on an encoder for adjusting a coding threshold for encoding a block in an image, wherein the coding threshold determines whether the block should be coded, comprising:

        encoding, at a first time, a first image representation of the block using at least a first quantization parameter and a first motion vector generated by the encoder;

        encoding, at a second time later than the first time, a second image representation of the block using at least a second quantization parameter and a second motion vector generated by the encoder; and

        adjusting the coding threshold in the encoder for at least a portion of the block if the first and second motion vectors are substantially zero and if the first and second quantization parameters are respectively less than first and second quantization parameter thresholds.

17

14.   (original) The method of claim 13, wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients.

15.   (original) The method of claim 13, wherein the first and second quantization parameter thresholds are the same.

16.   (original) The method of claim 13, wherein adjusting the coding threshold comprises adjusting the coding threshold to decrease the likelihood of encoding the block at the second time.

17.   (original) The method of claim 13, wherein adjusting the coding threshold comprises increasing the coding threshold.

18.   (original) The method of claim 13, further comprising:

        encoding, a third time prior to the first time, a third image representation of the block using at least a third quantization parameter and a third motion vector generated by the encoder; and

        adjusting the coding threshold in the encoder for the block if the first, second, and third motion vectors are substantially zero and if the first, second, and third quantization parameters are respectively less than first, second, and third quantization parameter thresholds.

19.   (original) The method of claim 18, wherein the first, second, and third quantization parameter thresholds are the same.

20.   (original) The method of claim 13, further comprising:

        encoding, at the first time, the first image representation of the block using intercoding;

        encoding, at the second time, the second image representation of the block using intercoding; and

        adjusting the coding threshold in the encoder for at least a portion of the block if the first and second image representations are intercoded.

18

21.   (previously presented) A method implementable on a decoder capable of displaying a block of an image on a display, comprising:

        receiving from an encoder, at a first time, a first image representation of the block including first encoding parameters generated by the encoder;

        receiving from an encoder, at a second time later than the first time, a second image representation of the block including second encoding parameters generated by the encoder;

        assessing at the decoder whether the image is likely stationary using at least the first and second encoding parameters, wherein the first and second encoding parameters include at least first and second quantization parameters; and

        if the image is likely stationary, not updating at least a portion of the block on the display.

22.   (original) The method of claim 21, wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients.

23.   (original) The method of claim 21, wherein the first and second encoding parameters respectively comprise at least first and second motion vectors.

24.   (original) The method of claim 23, wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero.

25.   (canceled)

26.   (previously presented) The method of claim 21, wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds.

27–28. (canceled)

29.   (original) The method of claim 21, further comprising:

19

receiving from the encoder, a third time prior to the first time, a third image representation of the block including third encoding parameters generated by the encoder; and

assessing at least the first, second, and third encoding parameters to determine whether the image is likely stationary.

30. (original) The method of claim 21, wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are intercoded.

31. (previously presented) A method implementable on an encoder capable of transmitting image information to a decoder, comprising:

encoding, at a first time, a first image representation of the block using first encoding parameters generated by the encoder;

encoding, at a second time later than the first time, a second image representation of the block using second encoding parameters generated by the encoder;

assessing at least the first and second encoding parameters to determine whether the image is likely stationary, wherein the first and second encoding parameters comprise at least first and second quantization parameters; and

if the image is likely stationary, sending a no code signal to a decoder for at least a portion of the block.

32. (original) The method of claim 31, wherein the first and second image representations comprise a matrix of quantized discrete cosine transform coefficients.

33. (original) The method of claim 31, wherein the first and second encoding parameters respectively comprise at least first and second motion vectors.

20

34.   (original) The method of claim 33, wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second motion vectors are substantially zero.

35.   (canceled)

36.   (previously presented) The method of claim 31, wherein assessing to determine whether the image is likely stationary comprises determining whether the first and second quantization parameters are respectively below first and second quantization parameter thresholds.

37–38. (canceled)

39.   (original) The method of claim 31, further comprising:
        encoding, a third time prior to the first time, a third image representation of the block using third encoding parameters generated by the encoder; and
        assessing at least the first, second, and third encoding parameters to determine whether the image is likely stationary.

40.   (original) The method of claim 31, wherein the first and second encoding parameters respectively comprise whether the first and second image representations of the block are intercoded, and wherein assessing the first and second encoding parameters comprises an assessment whether the first and second image representations of the block are intercoded.

IX.   <u>EVIDENCE APPENDIX</u>

None.

X.   <u>RELATED PROCEEDINGS APPENDIX</u>

None.